



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Katsushi SHIO et al.

Group Art Unit: 1616

Application No.: 09/446,730

Examiner: A. PRYOR

Filed: December 27, 1999

Docket No.: 105081

For: AQUEOUS SUSPENDED AGRICULTURAL CHEMICAL COMPOSITION

DECLARATION UNDER 37 C.F.R. §1.132

I, Katsushi SHIO, a citizen of Japan, hereby declare and state:

1. I have a master's degree, which was conferred upon me by Shimane University in Shimane, Japan, in 1992.

2. I have been employed by Nissan Chemical Industries, Ltd. since 1992 and I have had a total of 15 years of work and research experience in pesticide formulation chemistry.

3. I am a named inventor in the above-captioned patent application.

4. I and/or those under my direct supervision and control have conducted the following tests, and/or have acquired knowledge about quizalofop-p-ethyl through studying the relevant scientific literature, in support of U.S. Patent Application No. 09/446,730:

Ethyl (R)-2-[4-(6-chloroquinoxalin-2-yloxy) phenoxy] propionate (hereinafter "quizalofop-p-ethyl") is an agricultural chemical compound that is used, for example, as an herbicide. Quizalofop-p-ethyl has been found to be more effective than Ethyl (S)-2-[4-(6-chloroquinoxalin-2-yloxy) phenoxy] propionate (hereinafter "the S-enantiomer") or Ethyl (R,S)-2-[4-(6-chloroquinoxalin-2-yloxy) phenoxy] propionate (hereinafter "quizalofop-

ethyl"). For example, quizalofop-p-ethyl is more efficient in the inhibition of the fatty acid biosynthesis.

Quizalofop-p-ethyl forms two different crystals, the α -type crystal and the β -type crystal, depending on the crystallization conditions. The α -type crystal and the β -type crystal can be distinguished by performing X-ray powder diffraction, differential scanning calorimetry and by optical inspection under a microscope. It is duly noted that quizalofop-ethyl does not form the β -type crystal. Instead, quizalofop-ethyl forms a crystal that melts at 91.7 to 92.1 °C, whereas the α -type crystal and the β -type crystal melt at 74 °C and 80 °C, respectively.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and/or imprisonment under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date: Jul. 3, 2007

Katsushi Shio
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